



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,274	02/19/2004	Michael K. Lindsey	MKL-003	4235

48490 7590 02/15/2007
MICHAEL K. LINDSEY
GAVRILOVICH, DODD & LINDSEY, LLP
3303 N. SHOWDOWN PL.
TUCSON, AZ 85749

EXAMINER

RADA, ALEX P

ART UNIT	PAPER NUMBER
----------	--------------

3714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/15/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Period for Reply

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-41 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-40 is/are rejected.
- 7) ☒ Claim(s) 32 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 November 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

In response to the amendment filed November 16, 2006 in which the applicant cancels claims 1-21 and adds new claims 22-41 and claims 22-41 are pending in this application.

Specification

1. The amendment filed November 16, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The newly added paragraph ending on page 2, line 25:

In accordance with an exemplary embodiment of the invention, an electronic die includes a six-sided, cube-shaped shell defining the exterior of the electronic die. Each side of the cube-shaped shell represents a predetermined outcome that is distinct from the outcomes represented by the other sides of the cube-shaped shell. Plural light-emitting pips are located on the sides of the shell, which represent the numbers one through six, respectively. An electronic circuit, located within the shell, causes the light-emitting pips to light up in a pattern that has a predetermined duration. The electronic circuit includes an integrated circuit (IC) for illuminating one or more light sources, which illuminate the light-emitting pips according to the pattern. The IC is circuit-on-board (COB) mounted to a printed circuit board (PCB) and configured in a one-shot mode. Also located within the shell is a sensor for triggering the electronic circuit in response to the electronic die being physically manipulated and at least one battery for powering the electronic circuit.

Applicant is required to cancel the new matter in the reply to this Office Action.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application

Art Unit: 3714

claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 22-41 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-30 of U.S. Patent No. 7,017,905 in view of Brady (US 3,755,241). U.S. Patent No. 7,017,905 disclose all of the claimed limitation as disclosed therein except for potting material filling the inside of the outer shell.

Brady teaches a potting compound used within a casing to protect electronic component from being destroyed or damaged. By having potting material, one of ordinary skill in the art would provide a protective support for components inside of a casing that may be damage by vibration or shock. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to include potting material as taught by Brady to provide a protective support for components inside of a casing that may be damage by vibration or shock.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary

Art Unit: 3714

skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 22-25, 27-29, 33-35, and 37-38, are rejected under 35 U.S.C. 103(a) as being unpatentable over Solow et al. (SU 6,588,748) in view of Larson (US 4,641,840).

Regarding Claims 22 and 33, Solow et al discloses an electronic die comprising a six-sided, cube-shaped shell defining the exterior of the die, each side of the cube-shaped shell representing a predetermined outcome that is distinct from the outcomes represented by the other sides of the cube-shaped shell (figure 1; where the cube-shaped shell defining the exterior is shown); a first side representing the number one (figure 1; where a side of the die is shown and the dot plugs (50) are considered to be the light emitting pips); a second representing a number two (figure 1; where a side of the die is shown and the dot plugs (50) are considered to be the light emitting pips); three light emitting pips representing the number three (figure 1; where a side of the die is shown and the dot plugs (50) are considered to be the light emitting pips); four light-pips representing the number four (figure 1; where a side of the die is shown and the dot plugs (50) are considered to be the light emitting pips); five light-pips representing the number five (figure 1; where a side of the die is shown and the dot plugs (50) are considered to be the light emitting pips); and a six light-pips representing the number six (figure 1; where a side of the die is shown and the dot plugs (50) are considered to be the light emitting pips);

Regarding claims 23 and 35, Solow et al discloses a light pipe located at least partially within the shell for transferring light from the LEDs to at least one of the light-emitting pips (figure 2 and col. 3, lines 29-44; where the projecting figures (52) being partially located within the shell);

Regarding claims 24 and 34, Solow et al discloses the shell is transparent and the electronic die further comprises an opaque layer of material disposed on the transparent shell in a

Art Unit: 3714

predetermined pattern defining the light-emitting pips (figure 2 and col. 3, lines 23-28; where the pattern of the die is shown);

Regarding claims 27 and 37, Solow et al discloses one light-emitting pip located representing the number one (figure 1; where a side of the die is shown and the dot plugs (50) are considered to be the light emitting pips);

Regarding claims 28 and 38, Solow et al discloses two light-emitting pips representing the number two (figure 1; where a side of the die is shown and the dot plugs (50) are considered to be the light emitting pips); and

Regarding claim 29, Solow et al discloses each of the pips includes one of the LEDs (col. 2, line 66 – col. 3, line 6; where each of the plugs (50) includes one of the LEDs).

Solow et al is silent regarding an electronic circuit, located within the cub-shaped shell, for causing, in response to a triggering input, the light-emitting pips light up in a predetermined pattern that has a predetermined duration, the electronic circuit including an integrated circuit (IC), the IC being mounted to a printed circuit board and configured in a one-shot mode; a sensor, located within the cube shaped shell, for providing the triggering input to trigger the electronic circuit to illuminate the light-emitting pips according to the predetermined pattern to the die being physically manipulated; and at least one battery located in the cube-shaped shell for powering the electronic die and the at least one battery is a coin cell battery.

Larson teaches electronic playing die comprising: a cubed shaped shell having an electronic circuit, located within the cub-shaped shell (figure 1; where an electronic circuit within the shell is shown), for causing, in response to a triggering input, the light-emitting pips light up in a predetermined pattern that has a predetermined duration (col. 5, line 50 – col. 6, line 7; where the sequence of numbers being generated by the number generator is the predetermined pattern), the

Art Unit: 3714

electronic circuit including an integrated circuit (IC), the IC being mounted to a printed circuit board and configured in a one-shpt mode (figures 1-3; where the operation of the circuit means is shown); a sensor, located within the cube shaped shell, for providing the triggering input to trigger the electronic circuit to illuminate the light-emitting pips according to the predetermined pattern to the die being physically manipulated (figure 2; where a motion switch is the sensor for triggering the electronic circuit when physically manipulated); and at least one batter located in the cube-shaped shell for powering the electronic die (figures 3a-3b; where a conventional battery power source sufficient to energize and maintain the electronic circuit shown). By having an electronic circuit and sensor to activate the electronic die, one of ordinary skill in the art would provide some level of amusement and interest when rolling the die in a new and exciting manner.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Solow et al to include an electronic circuit, located within the cub-shaped shell, for causing, in response to a triggering input, the light-emitting pips light up in a predetermined pattern that has a predetermined duration, the electronic circuit including an integrated circuit (IC), the IC being mounted to a printed circuit board and configured in a one-shpt mode; a sensor, located within the cube shaped shell, for providing the triggering input to trigger the electronic circuit to illuminate the light-emitting pips according to the predetermined pattern to the die being physically manipulated; and at least one batter located in the cube-shaped shell for powering the electronic die as taught by Larson to provide some level of amusement and interest when rolling the die in a new and exciting manner.

6. Claims 26 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solow et al. (SU 6,588,748) in view of Larson (US 4,641,840) as applied to claims 22 and 33 above, and further in view of Brady (US 3,755,241).

Regarding claims 26 and 36, Solow et al in view of Larson disclose the claimed invention as discussed above but is silent in regards to the potting material placed inside the cube-shaped shell.

Brady teaches a potting compound used within a casing to protect electronic component from being destroyed or damaged. By having potting material, one of ordinary skill in the art would provide a protective support for components inside of a casing that may be damage by vibration or shock. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Solow et al to further include potting material as taught by Brady to provide a protective support for components inside of a casing that may be damage by vibration or shock.

7. Claims 30-31 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solow et al. (SU 6,588,748) in view of Larson (US 4,641,840) as applied to claims 22 and 33 above, and further in view of Lam (US 6,394,903).

Regarding claims 30, 32, 39 and 41, Solow et al in view of Larson disclose the claimed invention as discussed above but is silent in regards to an audio generator and a switch located within the cube-shaped shell for indicating which of the shell sides is facing up.

Lam teaches a toy dice having a sound generator being controlled by an integrated circuit and a switch for indicating which of the shell sides is facing up. By having an audio generator and a switch to indicate which side is facing up, one of ordinary skill in the art would provide a definite and audible indication of which side on the die is facing up.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Solow et al to further include a audio generator and a gravity type switch as taught by Lam to provide a definite and audible indication of which side on the die is facing up.

Allowable Subject Matter

8. Claims 32 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments with respect to claims 22-41 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex P. Rada whose telephone number is 571-272-4452. The examiner can normally be reached on Monday - Friday, 08:00-16:00.

Art Unit: 3714

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Olszewski can be reached on 571-272-6788. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


APR

 2/12/07
ROBERT OLSZEWSKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700